

MBR0520WS SCHOTTKY BARRIER RECTIFIER DIODE

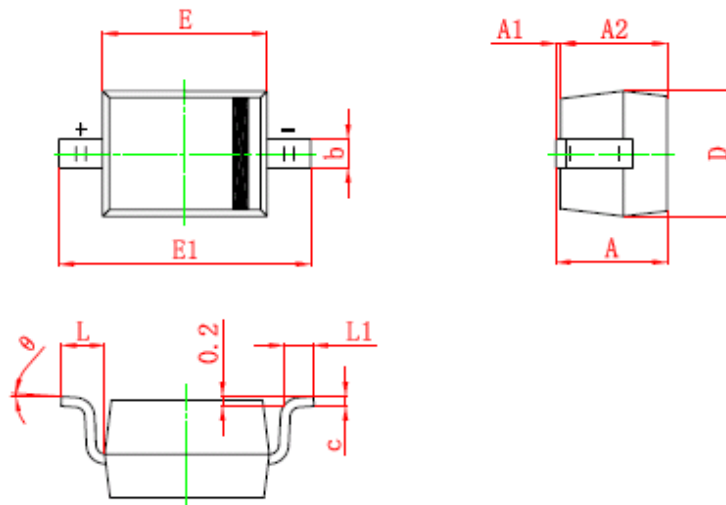
Features:

- Lead-less chip form
- Low Vf
- High current capability
- Low power loss/high efficiency
- UL 94V-0 class package material
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data:

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams(approx)

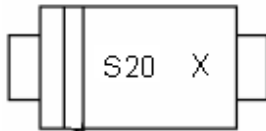
Mechanical Dimensions: In mm / Inches



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323(CJ)

Marking Diagram:



Where X is Date Code

S20 = Part Name

Cautions: Molding resin
 Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
MBR0520WS	SOD-323(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.



Maximum Ratings and Electrical Characteristics

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Repetitive Peak Reverse Voltage	V_{RRM}	-	20	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_A=55^{\circ}C$, rectangular wave form	0.5	A
Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse	10	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_F	@ 0.5A, Pulse, $T_J = 25^{\circ}C$	0.45	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	100	μA
Junction Capacitance	C_J	@ $V_R = 5V$, $T_C = 25^{\circ}C$ $f_{SIG} = 1MHz$	75	pF

* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +125	$^{\circ}C$
Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}C$
Maximum Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	120	$^{\circ}C/W$
Case Style	SOD-323			

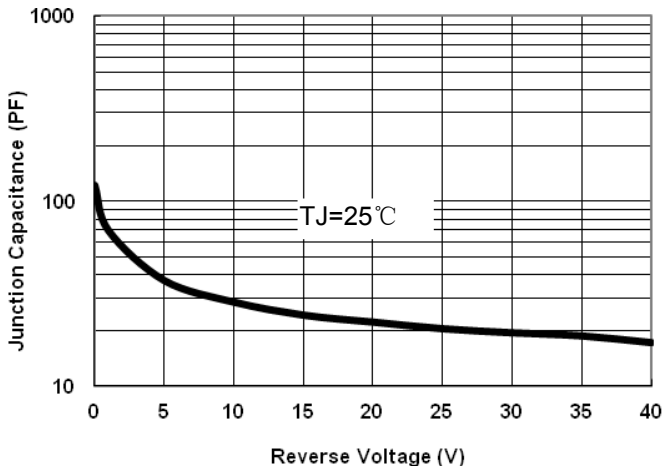


Fig.1-Typical Junction Capacitance

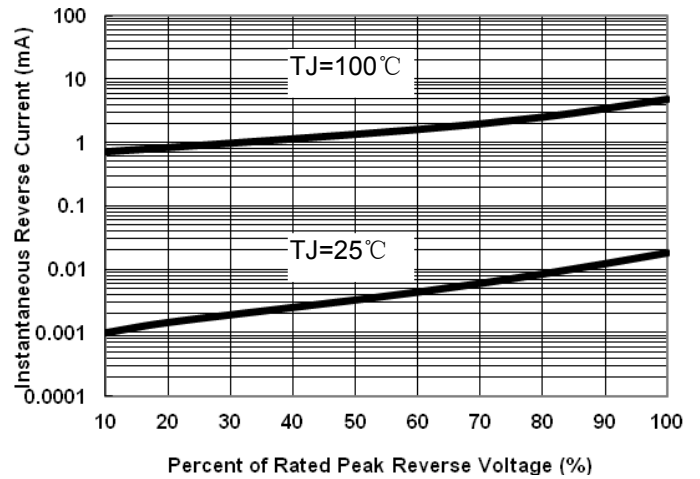


Fig.2-Typical Reverse Characteristics

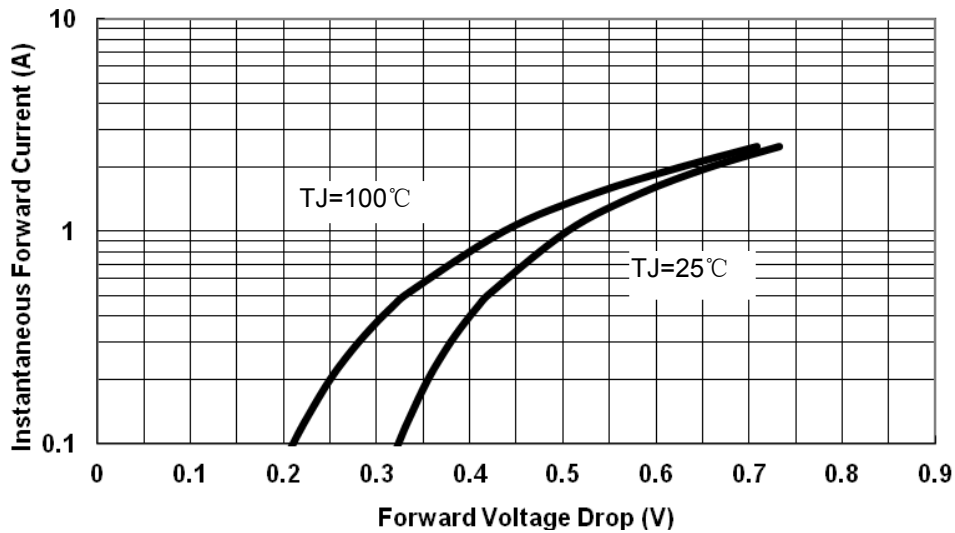


Fig.3-Typical Forward Voltage Drop Characteristics

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